STANDING AT THE VIRTUAL OFFICE DOOR

LAW ENFORCEMENT CAN ENTER THE NEW AGE OF THE GLOBAL WORKPLACE

by

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The Command College Futures Study Project is a FUTURES study of a particular emerging issue of relevance to law enforcement. Its purpose is NOT to predict the future; rather, to project a variety of possible scenarios useful for strategic planning in anticipation of the emerging landscape facing policing organizations.

This journal article was created using the futures forecasting process of Command College and its outcomes. Defining the future differs from analyzing the past, because it has not yet happened. In this article, methodologies have been used to discern useful alternatives to enhance the success of planners and leaders in their response to a range of possible future environments.

Managing the future means influencing it—creating, constraining and adapting to emerging trends and events in a way that optimizes the opportunities and minimizes the threats of relevance to the profession.

The views and conclusions expressed in the Command College Futures Project and journal article are those of the author, and are not necessarily those of the CA Commission on Peace Officer Standards and Training (POST).

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Imagine a workplace that has no walls, no drab muted paint and carpeting, with no cubicles or a personal workspace. Imagine a workplace where all of the employees look forward to going to work and spending most of their day in the office. Imagine leading a law enforcement agency that operates in the most efficient manner, and is the most responsive to its citizens, stakeholders, and governing agencies. All of these goals can be quickly obtained with the proper integration of technology, coupled with best practices and sound human resource management principles.

California law enforcement agencies are at a critical crossroads, struggling with losses in experienced personnel, difficulty recruiting new members of staff and coping with an ever-shrinking budgetary stream. These struggles are occurring in an environment where our constituencies are demanding we do more with less to increase their return on investment (ROI). All of these pressures are causing police chiefs and other executive leaders to have sleepless nights while figuring out how to make their agencies more efficient, responsive, and attract the best qualified candidates to fill the growing number of job vacancies in their departments.

Against this landscape, some might be tempted to just do as best as they can. In turmoil, though, lies opportunity. Now may be the time to consider not just doing more with less, but doing it differently altogether. Now is the time to imagine how a virtual office environment can change the equation for law enforcement.

This article will focus on three things: one, what exactly constitutes a virtual – smart office platform for a law enforcement agency; two, how to successfully transition

into a virtual office environment; and three, the positive outcomes and results that can be achieved by implementing this technology in the workplace.

The New Global Age of Technology – A Flat and Crowded World

Before we discuss what constitutes a virtual office, a brief history of how we arrived at the "global age of technology" is in order. So how did we get here?
In his book, *The World is Flat – A Brief History of the Twenty-First Century, Version 3.0,* Thomas Friedman examines the reasons why our world has changed dramatically and exponentially by explaining the "triple convergence" and how the global economy has changed. Friedman's first convergence is 10 flatteners that include the fall of the Berlin Wall, the rise of personal computing and dramatic changes to work flow, including outsourcing and offshoring of work. These flatteners have led to the creation of an efficient Web-enabled platform for collaboration of governments, corporations, and the individual person. Friedman labeled this as the collaborative interface for our civilization.

Convergence number two is identified as horizontalization, and is the number one reason why our global economy is flat. In the past "chain-of-command" was the normal paradigm for corporations and governments to operate. This paradigm effectively places the organizations into silos. The horizontalization affect was borne out of the 10 flatteners with the combination of the personal computer, the Internet, and fiber optics. When all of this is combined, anyone can now connect and collaborate.

Convergence number three are the three billion people collaborating and competing like never before in the global commerce market place. People in China, Russia, India, Eastern Europe, Latin America and Central Asia have plugged into the

internet. As a result, our world has forever changed due to the flattening of the global marketplace. Friedman points out that that everyone needs to pay attention to the fact that there is a fundamental change the way business is conducted, and that we must also change to be competitive and improve. For example, Boeing engineers are working with Russian scientists from Ilyushin, Tupolev, and Sukhoi because these engineers are the best and brightest in aerodynamic problems and working with alloys. Because of the advancements in communications and the Web, Boeing created a 24 hour workday with two shifts in Moscow, and one shift in America. The Russian engineers outsourced some of their work to engineers to Hindustan Aeronautics in Bangalore, India. As a result of this triple convergence; Boeing can now build a 737 model aircraft in 11 days, down from 28 days a few years ago.

The Boeing aircraft example clearly demonstrates why and how the world became flat, according to Freidman, and how the 10 flatteners brought global change to commerce, government and our education system. The flatteners were synergized with the growth of the personal computer, the Web, fiber optics, and the additional 300 million people "plugging-in" to the global economy. The old principle of chain-of-command may have worked in corporations before, which built silos and walls within our country. Since the triple convergence, however, corporations, governments, and our education systems must now recognize and embrace the connect-and collaborate principle if we are going to compete and be efficient in the new global economy.

Components Needed to Build a Virtual Office Environment

In her article, *"Virtual Office is What You Make It (October 2006),"* Penelope Trunk described how the telecommuting trend exploded into the virtual company, or an

office without walls, with no office to commute from. The future is the age of a virtual business. There are a number of reasons why virtual businesses are becoming popular:

- Workers will quit traditional jobs to gain control over their time (more flexibility).
- Technology is the great leveler of the global market.
- Retail is the area that will see the largest benefit of a virtual office (the Web).
- Telecommuting is on the rise because workers are more productive.

Generation Y are the majority of personnel in a virtual based company. This is not surprising, since this generation grew up with technology, and do not appreciate the difference between emerging virtual norms and the archaic systems and methodologies utilized by corporations and governments in the past *(Trunk October 2006)*. The company that operates on a virtual platform causes the employee to prioritize the work. The employee cannot work harder, per se, and the virtual environment clearly reveals if an employee is not working. For example, work product is more easily identifiable and transmitted to supervisors quickly; whereas, in a traditional office setting (i.e., cubicles and offices), employees can seem to be very busy and not produce anything *(Trunk October 2006)*.

How do Trunk's assertions translate to a law enforcement agency? Apply the concept to an investigation unit. Imagine that you are the commander of the unit, and you are looking into the room where your team is working. Everyone is busy reading files, conversing on the telephone, working on the computer, and talking with colleagues and partners. Notwithstanding the monthly statistics compiled on arrests, warrants, interviews, etc., how do you know that the investigation unit is functioning on an efficient and effective level? In other words, how can you ensure that each detective is

actually working on an assignment as efficient as they can? The virtual office platform can demonstrate the productivity of the detective to the supervisor, which leads to better accountability and efficiency. Reports can reviewed and approved faster, which will lead to improved performance on completing the investigation with a resolution (closure or criminal court filing).

So what exactly constitutes a virtual office? At first thought, one would immediately think of a Web based communication system for e-mail and instant messaging. However, there is a lot more to it besides a BlackBerry and an air-card for the notebook computer. In his article, *Enabling Technology for Virtual Offices (1996)*, Frank Manola identified the basic enabling technology components to create the virtual office. This research was sponsored by the Defense Advanced Research Projects Agency (DARPA), and was managed by the United States Army Research Laboratory.

Manola asserts that that the vision of the virtual office in the future is enabled by the integration of the Internet, World Wide Web, Object, Middleware, and Database technologies *(Manola 1996)*. Manola's research included developing scenarios with the technology listed for each one to make them work. The biggest problem identified in the research is the ability to organize distributed information systems. Based on this key problem, Manola identified basic and advanced enablers to support and enable a virtual office environment to be effective and efficient.

Basic enablers are technologies required to support a virtual office environment, or a virtual version of a conventional office. Many of these applications are commercially available to the public, or a system could be custom designed and

implemented for specific requirements of the corporation or government agency. These basic enablers include:

- General purpose applications (e-mail, editors, spreadsheet, etc.).
- Telephone communications, including audio conference and facsimile.
- Transfer of documents via e-mail, and other static types of information (map data and images).
- Desktop video conferencing, including the ability to share information and documents being discussed.
- Shared information space, and the technical support to maintain the system. Shared documents include work product, plans, schedules, reports, on-line libraries and applications.
- Backup and recovery support.
- Digital signatures for internal memoranda, reports, timesheets and property control documents.
- Secure communications via firewalls, and secure messaging with outside parties (a virtual private network).
- Access to other online content providers with integration capability into the work product.

The advanced enablers are divided into two categories; architecture-related enablers and other technology enablers. The architecture-related enablers are:

- A scaleable, open architecture based on commercial technologies and standards.

- Interoperability among object models and data types, diverse systems, metadata (data describing data).
- Flexible and rapid application development (plug and play technology).
- Non-stop operation (updating and configuration of the system while still in operation).
- Advanced networking and related technologies (automatic bandwidth allocation, and integrate different communication channels as part of the same action).
- Flexible and modular security systems.

Manola concluded that basic enablers are required to support a virtual version of a conventional office. Interestingly, all of these enablers are available in the commercial marketplace today. As Friedman pointed out, the personal computer, Netscape, fiber optics, the Web, and 300 million new people plugging into the global market quickly flattened the world, which changed how we operate and compete in the global marketplace.

Recent advancements in communication have augmented the components of a virtual office. In his research paper, *"The Arrival of the Virtual Office,"* Ira Weinstein (August 2005), added the BlackBerry device (remote and instant Email), web conferencing and data collaboration (sometimes referred to as a "shared white-board"), instant messaging, and group video conferencing. One could also add the "direct connect" feature available on some mobile devices as another system of communication.

The Human Resource Issues

So, if the virtual office environment is good for employees, the company, and the global marketplace, why have government agencies been slow to jump into the new and flattened world? Some people believe that the traditional government offices may not be the best places to get the job done.

In her article, *Virtual Office is Gaining Steam (March 2005),* Judi Hasson describes the office in the not too distant future. The government office will not be a cubicle with moveable walls, nor will it be an in-home office or a drop-in site set up by the agency. For the government and industry workers, the office will be wherever they want or need it to be. Virtual private networks, handheld computers, Web conferencing and encrypted data lines, the office can be anywhere. Hasson noted that according to Jeffrey Pon, deputy director of e-government initiatives at the Office of Personnel Management, the Research in Motion (RIM) BlackBerry (a personal digital assistant connected to a cellular telephone provider with Web access, coupled with standard office software) has allowed the virtual office to start and become the mainstay of certain government functions *(Ibid).*

Certain job positions are well suited fort a virtual office platform. For example, health and safety inspectors, tax monitors and census enumerators. Some government workers may not be able to carry out their jobs in a virtual office environment, but it is inevitable, according to Hasson. Security and privacy issues are the number one concern of managers and executives of the government agencies. Indeed, there are security devices attached to the systems so managers can monitor activity and where the users may be, but there are other concerns. Managers do not want to turn every employee into

little information technology departments. Human resource managers maintain that general employees are not hired for that discipline. Thus, some managers are afraid that the virtual office environment might be burdensome on the employee because they have to be trained and possess more knowledge about technology. Cisco Systems, though, has already made significant progress in eliminating that fear with their "Virtual Margaret" distance employment demonstration program. With the advent of Margaret, their virtual office assistant, coupled with "telepresence," the new three dimensional audio and video conference system, an employee does not have to have a lot of technology training to utilize the system. In fact, Margaret (a real employee of Cisco) works every day in Cisco's Silicon Valley offices while actually residing in Texas. She "occupies" her workspace virtually, conducting business, meeting with staff, and even taking coffee breaks with her peers, who quickly developed a comfort level with "being with" Margaret through the 65" widescreen monitor and sound system. Now, imagine your virtual training officer or supervisor on your system when staff logs in at the start of their day. Training, administrative and operations briefings, and interaction with staff will occur instantly, efficiently, and is cost effective.

One large federal agency dispels that myth and provides an example of what might be the future for many others. The Census Bureau is leading the virtual office environment for the federal government. In 2010, the bureau will deploy 500,000 to 600,000 workers equipped with handheld computers to go to door to door counting people who do not respond to the census by mail. The census workers are going to electronically transmit the encrypted data. The benefits are that the workers will be extremely mobile, and efficient in obtaining and reporting the data collected. The

estimated cost for this new technology for the 2010 census is approximately $300 - $400 million to acquire the best technology.

By 2010, according to Wendall Joice, director of innovative workplaces at the General Services Administration (GSA), corporations will have virtual teams working on projects. There will be people working at home and in the field. Some federal jobs all ready require the virtual office environment. For example, the information technology applications utilized in the Treasury Department's Inspector General for Tax Administration allow a team of people who perform audits and investigations along the East Coast to collect and transmit the data to a central office. There is no hard evidence that the virtual office platform improves productivity, but there is soft evidence that productivity is high, according to Hasson *(Ibid)*.

The National Highway Traffic Safety Administration (NHTSA) has issued tablet personal computers to inspectors to conduct field examinations. In addition to the elimination of paper, the inspectors can input data in the field and transmit it back to the office. This business process cuts down the duplicative time of transferring field notes to official forms and reports, and allows for real-time reporting of the census data.

Federal officials and think-tank scholars continue to examine and explore the idea of a new virtual office workplace. However, many of them remain skeptical about the virtual concept. Many of the government leaders believe that people want to be connected with their colleagues in the office. It is not the notion of having to come into an office and complete paperwork; it is a sense of belonging to a community.

Implications on the Future of Policing

Some law enforcement executives are going to cringe when they read about this research project: "This will not work!" "We have never done it that way!" 'That will only work in the private sector!" "How much is this going to cost?" "It will give our employees too much freedom!" Sound familiar? These are the normal responses one will hear from senior executive managers who are not open to change in the workplace.

Law enforcement leaders need to learn how successful corporations have adapted to competing in the flat, global economy. One of the critical keys to this success is the proper identification, implementation, and utilization of virtual-smart office technology in the workplace. Our younger generations in the work place are very comfortable and productive in utilizing current communication and computer technology in the workplace.

BlackBerrys, instant messaging, texting, wiki-groups, FaceBook, MySpace, are the basic technology components used by Generations X and Y in their private and professional (workplace) environments. Indeed, the boomers are catching up and learning quickly on the advantages of this type of communication. There are, however, some critical components to the law enforcement business process that a virtual-smart office platform will not address. Certain personnel considerations and issues still present problems that can not be solved by technology; specifically, training and supervision of officers performing critical and tasks while performing their jobs. In addition, officers' assigned to criminal investigations need to collaborate with other detectives on their investigations, often just to seek advice or guidance on how to solve a problem. Some of these types of issues are too complex to be able to just log into the instant messaging

program, or e-mail to solve. There has to be personal, one-on-one contact in the workplace for these common issues. The best example of this is in the state law enforcement agencies when the new investigator is in the field training program after graduating from the basic police academy.

A law enforcement agency can become more accountable and efficient in a virtual-smart office environment. In the last few years, a paradigm shift for virtual technology occurred in the private sector, which was one of the force multipliers that accelerated our world into a flat and global economy. The right risk will yield accomplishment and growth in exploring and changing a traditional business process into the virtual-smart office. It will work with the proper foresight, planning, and the courage to take a step into the next century.

Building a Custom Virtual Office Platform for Your Agency

Now that we understand what a virtual office platform looks like for a law enforcement agency, some of you are thinking; "Wow, I have really falling behind on this. I could save money, increase employee satisfaction, and improve the quality of reports and productivity for our customers (prosecutors, governing boards and councils), but how can I make this fit in my agency? Let's think of the possibilities.

Imagine how a "virtual training officer or supervisor" can be incorporated into the daily business process for your department. Since the virtual office platform will be designed and implemented based on the officer's and customers requirements, detectives will be able to communicate and collaborate with supervisors, peers, allied agencies, and prosecutors on current assignments. Information can be exchange and acted upon at a faster pace, which will result in more efficient and timely enforcement activity (case

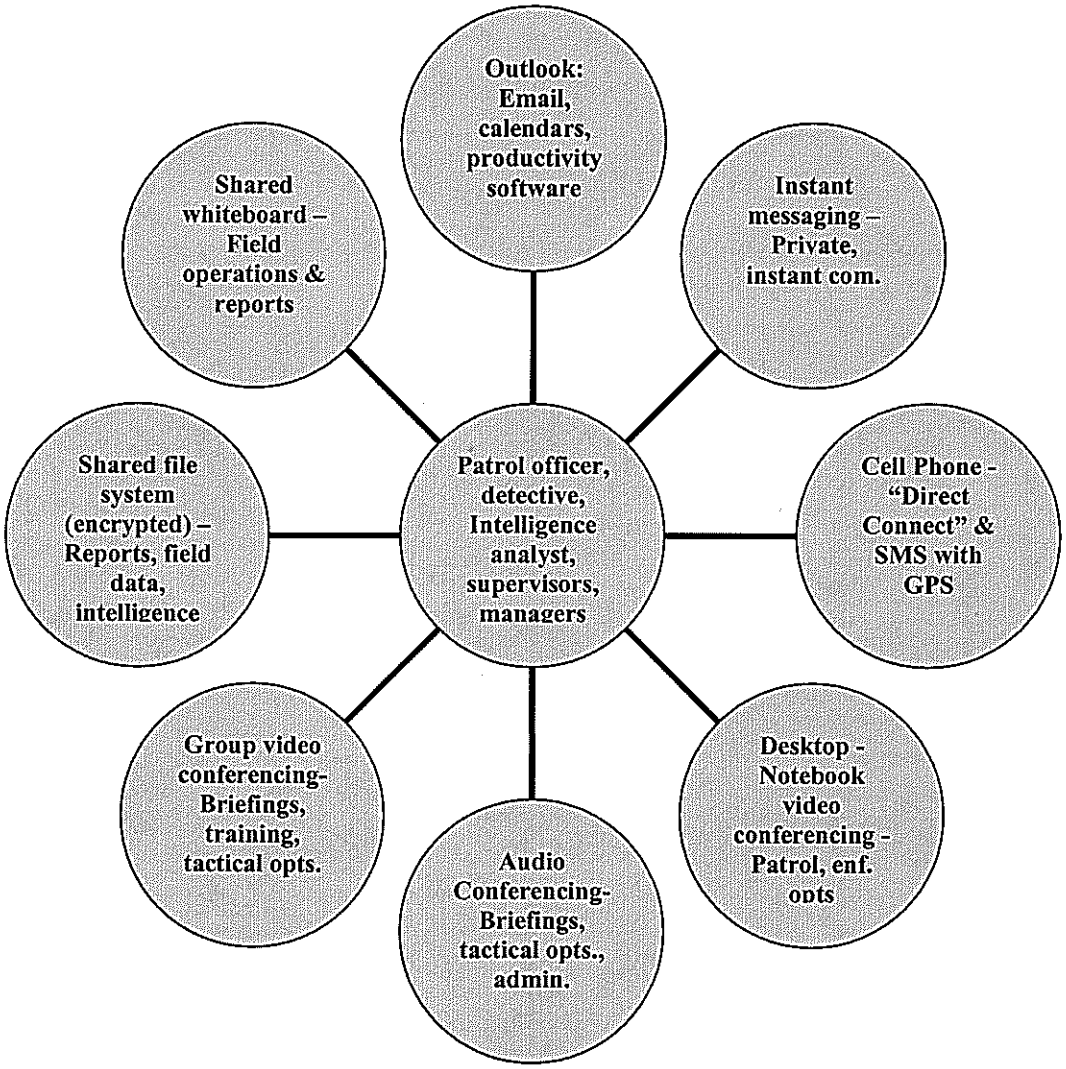
closures, arrests, search warrants, criminal filings, convictions and sentencing of the offenders), which result in an impact on reducing crime in the community. Administrative and personnel cost savings will be another benefit, too. Since the detectives will have more virtual interaction with their supervisors, the agency can accomplish more with fewer personnel. The detectives will be able to perhaps telecommute more effectively. Office space may be condensed saving overhead expenditures. It is very clear; the current downward spiral of revenue streams is causing law enforcement budgets to shrink. However, law enforcement still has a mission and service to provide to our citizens and communities. "Do more with less" is becoming the common mantra of our governing boards and the legislatures. The virtual office platform will allow the law enforcement agency to accomplish more with fewer resources.

Imagine having the capability to create and develop meaningful program reports, statistics, and ad-hoc information packets on the fly for your stakeholders in the community. One could build upon the virtual office system to convince governing boards where more resources (personnel, equipment and technology) are needed to suppress emerging crime problems in the community. Collaboration with allied agencies on the municipal, state and federal level can be excelled into an environment never experienced before.

Based on the research that Manola, Weinstein and Trunk conducted, Figure 1 illustrates the combination of basic components and the applications of a virtual office platform for a law enforcement agency:

Figure 1

Basic Components of a Virtual Office Platform for a Law Enforcement Agency



Conclusion

Investments in technology and collaboration strategies are critical to successful crime suppression. It does not matter what the specific crime problem is in a community. Progress can be made on solving these problems, and reducing crime if the law enforcement agency utilizes technology and partners with stakeholders in the community. The virtual-smart office environment will allow the agency to be more responsive to the

needs of the community. It will allow the agency to become more efficient in that the speed of the routine business process will increase. Reports, documents, and completed investigations can be reviewed and submitted much faster. Information can ebb and flow at a greater speed. The virtual office platform can be an important step in communication and collaborating with allied law enforcement agencies, and other public safety agencies on a level that has never been accomplished before.

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